

REMARKS

The Final Office Action mailed August 15, 2007 has been received and reviewed. Claims 1-20 are pending and are rejected under new grounds. Claims 1, 4, 5, 8, 9, 13 and 16 are amended. The claim amendments incorporate claim limitations from other claims and do not raise any new issue that was not present in the original claims as filed and no further searching is required. Therefore, entry of the amendments is appropriate. The Applicants submit that the claims are in condition for allowance for the reasons stated further below.

Rejection Of Claim 17 Under 35 U.S.C. § 102(b)

Claim 17 is newly rejected under 35 U.S.C. § 102(b) as being anticipated by Englesson (USP 3,018,925). The rejection is overcome by amendment of claim 17 which, as amended, requires an inlet sealing ring on the pump inlet that is not taught by Englesson. Claim 17 is not anticipated, therefore.

Rejection Of Claims 1-3 Under 35 U.S.C. § 103

Claims 1-3 are newly rejected under 35 U.S.C. § 103 as being unpatentable over Hawes, in view of Hofstad and Back. The Examiner states that Hawes discloses a submersible pump having the claimed elements, but does not disclose the claimed elements taught by Hofstad, which include a pump inlet, base housing with a plurality of guide members on which the pump is mounted and being arranged in relation to the pump inlet to position the pump inlet away from the floor of a sump pit or tank and to facilitate entrainment of solids toward the pump inlet opening. The Examiner asserts that it would have been obvious to modify the pump assembly of Hawes with the guide members on the bottom surface of the distribution plate as taught by Hofstad. The Examiner adds that Hawes and Hofstad do not disclose the limitations taught by Back, which are identified by the Examiner as a discharge outlet and discharge piping having an angled opening (FIG. 7) and a disconnect system comprising an angled face (69) surrounding the pump discharge outlet for assuring mating and sealing of the pump

discharge outlet to the angled opening, and a discharge elbow stand (44, 18) configured with an angled opening and being secured to the base plate (20) and discharge piping (10, 12). The Examiner states that it would be obvious to modify the pump of Hawes in view of Hofstad by angling the discharge outlet and piping in order to guide the discharge outlet to sealingly engage the discharge piping. The rejection is overcome by clarifying amendment of the claims.

Hawes describes a universal pump coupling system to provide simplified means for lowering any manufacturer's submersible pump into a pit without the attendant problems of trying to connect and disconnect the discharge piping to and from the discharge outlet of the pump while the pump is in the pit. (See, column 1, lines 48-55) To solve those problems, Hawes provides a mounting frame to which the pump is secured (see FIG. 1 and FIG. 4 of Hawes) before lowering into the pit. That is, both the mounting frame and the pump are lowered as a unit into the tank and are removed from the tank as a unit. (Col. 6, lines 36-44) To avoid the problems encountered with lowering the pump into the tank and attempting to make a sealing connection between the pump discharge outlet and the stationary discharge piping, Hawes provides adaptors for connecting the discharge outlet to wet piping that extends out of the tank. (See, col. 1, lines 51-55). Consequently, the system of Hawes is specifically directed to securing the pump to the mounting frame outside of the tank so that both the pump and mounting frame are lowered into the tank together, and any need for connecting or disconnecting either the discharge outlet of the pump or the pump inlet to other structures while down in the pit are avoided. As such, Hawes specifically teaches away from the other references cited by the Examiner, and more importantly, Hawes teaches away from that which is claimed.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined)

must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on the applicant's disclosure. In re Vaeck, 20 U.S.P.Q. 2d 1438 (Fed. Cir. 1991); MPEP 706.02(j). No *prima facie* case of obviousness can be established based on the cited references because none of the references teaches or suggests that which is claimed and, in fact, the references teach away from that which is claimed.

Specifically, amended claim 1 requires a pump distribution plate which is positioned in a sump pit or tank and is configured with a centering member located on the said at least one opening of the distribution plate to receive the pump inlet as the pump is being lowered into the tank or pit. As noted previously, Hawes is specifically directed to a mounting frame (which the Examiner equates to the claimed pump distribution plate) to which the pump is secured before both are lowered into the pit. Hofstad discloses a lower pump portion (8), which the Examiner equates to the claimed distribution plate by virtue of having guide members extending from and mounted to the pump portion (8), but the lower pump portion (8), like Hawes, is secured to the upper pump housing and moves with the pump as a whole. The lower pump portion (8) of Hofstad is not equivalent, therefore, in any way to the claimed distribution plate and because the lower pump portion (8) is a secured part of the pump housing, there is no teaching or suggestion of a centering member as claimed. Back fails to teach a pump distribution plate, or anything equivalent to a pump distribution plate. Therefore, nothing in any of the three cited references, Hawes, Hofstad or Back, disclose what is claimed, and provide no teaching or suggestion of providing a pump distribution plate with centering member as claimed. Claims 1-3 are not obviated, therefore.

Rejection Of Claim 13 Under 35 U.S.C. § 103

Claim 13 stands rejected under 35 U.S.C. § 103 as being unpatentable over Hawes in view of Hofstad. The Examiner states that Hawes discloses a submersible pump having the claimed elements, including a linear plate portion sized to receive the

inlet 36 of a pump for receiving the pump inlet and having a bottom surface for orientation toward the floor of a sump pit or tank, and the plate having leg members 38 to position the pump inlet away from the floor of sump pit or tank, and a pump inlet sized for receipt in the said at least one opening. But, the Examiner states that Hawes does not teach the features taught by Hofstad, namely, a base housing and guide members arranged to position the pump inlet away from the pit or tank and to facilitate solids entrainment. The rejection is overcome by amendment of claim 13. For the same reasons stated above with respect to claim 1, neither Hawes nor Hofstad teach or suggest a pump distribution plate with a centering member that is positioned to receive and center a pump inlet as the pump is lowered into the tank or pit where the pump distribution plate is located. Claim 13 is not obviated by the references.

Rejection Of Claims 14 And 15 Under 35 U.S.C. § 103

Claims 14 and 15 stand rejected under 35 U.S.C. § 103 as being unpatentable over Hawes in view of Hofstad, and further in view of Back. The Examiner states that Hawes in view of Hofstad discloses the invention, but do not disclose the claimed elements disclosed by Back, including a discharge outlet (14) and discharge piping (10,12) having an angled opening (FIG. 7) and a disconnect system comprising an angled face (69) surrounding the pump discharge outlet for assuring mating and sealing of the pump discharge outlet to the angled opening, and a discharge elbow stand (44, 18) configured with an angled opening and being secured to the base plate (20) and discharge piping (10, 12). The rejection is overcome by amendment of claim 13, and as stated previously with respect to claims 1 and 13, Hawes, Hofstad and Back fail to establish a *prima facie* case of obviousness since not all claimed elements are disclosed by the references and, more importantly, the references teach away from what is claimed. Claims 14 and 15 are not obviated by the references.

Rejection Of Claims 4, 5 And 16 Under 35 U.S.C. § 103

Claims 4, 5 and 16 stand rejected under 35 U.S.C. § 103 as being unpatentable

over Hawes, Hofstad and Back, and further in view of McEwan. The Examiner states that Hawes, Hofstad and Back disclose the claimed elements, except for a centering member (44) positioned within at least one opening in a pump distribution plate (30) for receiving a pump inlet (68), as taught by McEwan. Claims 4 and 16 are amended to recite an inlet seal ring on the pump inlet to provide sealing engagement between the pump inlet and the centering member. The rejection is rendered moot in that regard, but otherwise overcome for the reasons stated above with respect to claims 1 and 13. Specifically, Hawes and Hofstad fail to teach a pump distribution plate, in the first instance, and fail to teach any structure equivalent to a pump distribution plate as claimed having at least one opening to receive the inlet of a pump as the pump is lowered into tank where the pump distribution plate is located. Back fails to teach any such distribution plate or equivalent structure.

Further, the Applicants submit that no *prima facie* case of obviousness can be established with the cited references because Back does not teach a pump distribution plate at all, and both Hawes and Hofstad disclose structures which, although asserted by the Examiner to be equivalent to the claimed pump distribution plate, are not structured to receive the pump inlet as the pump is lowered into the tank where the pump distribution plate is located; rather, the structures of Hawes and Hofstad asserted to be equivalent to a pump distribution plate as claimed are secured to the pump housing prior to lowering of the pump into the tank or pit. Therefore, there is no motivation found in any of the references to combine Hawes, Hofstad or Back with McEwan, and there is no reasonable expectation of success for making a combination as suggested. Hawes and Hofstad explicitly teach away from the structure disclosed in McEwan. Claims 4, 5 and 16 are not obviated, therefore.

In addition, the Applicants note that McEwan fails to teach a centering member as claimed. McEwan discloses a receptor ring (44) which is positioned and sized to receive, by slip-fit engagement, one of a plurality of casings or housings which houses in impeller. The receptor ring (44) does not receive the pump inlet as claimed. Additionally, since the receptor ring (44) of McEwan receives the pump housing itself,

no inlet seal ring is required. Therefore, McEwan teaches a structure which is wholly different and not equivalent to the centering member claimed. Claims 4, 5 and 16 are not obviated, therefore.

Rejection Of Claim 6 Under 35 U.S.C. § 103

Claim 6 stands rejected under 35 U.S.C. § 103 as being unpatentable over Hawes, Hofstad, Back, McEwan and further in view of Englesson, which teaches a guide rail system with rail (29) as a guide rail bracket (33) connected to a submersible pump (10). The rejection is overcome by amendment of claim 1, and for the reasons stated above with respect to claim 1, claim 6 cannot be obviated by Hawes, Hofstad and Back, which teach away from that which is claimed. For the reasons stated above with respect to claims 4 and 5, McEwan fails to teach or suggest the claimed structure as well. The disclosure of guide rails in Englesson notwithstanding, claim 6 is not obviated by the cited references.

Rejection Of Claim 7 Under 35 U.S.C. § 103

Claim 7 stands rejected under 35 U.S.C. § 103 as being unpatentable over Hawes, Hofstad, Back, and further in view of Englesson, which teaches a guide rail system with guide rails (22), a guide rail bracket (28), connected to a discharge elbow stand (23) and positioned to guide movement of a pump into or out of a well. The rejection is overcome by amendment of claim 1, and for the reasons stated above with respect to claim 1, claim 7 cannot be obviated by Hawes, Hofstad and Back, which teach away from that which is claimed. The disclosure of guide rails in Englesson notwithstanding, claim 7 is not obviated by the cited references.

Rejection Of Claims 8-11 Under 35 U.S.C. § 103

Claims 8-11 are newly rejected under 35 U.S.C. § 103 as being unpatentable over Hawes in view of Hofstad, Back and McEwen. The Examiner states that Hawes in view of Hofstad and Back disclose the invention except for the limitations taught by

McEwen, namely, discharge piping (140, 36c, 38c), and inlet opening (131), a pump casing having a suction side (Hc), a suction head plate (138) positioned between the suction side of the pump and at least one opening of a pump distribution plate (30c), the pump inlet being formed in said suction head plate, a centering member (44c) as claimed and the centering member having an angled inner surface (54) and the pump inlet (138) having an outer angled surface as claimed. The rejection is overcome by amendment of claim 1, and as argued previously with respect to claim 1, Hawes, Hofstad and Back do not establish a *prima facie* case of obviousness. It is noted additionally that the false bottom (30c) of McEwan fails to disclose or have the claimed guide members. Further, McEwan fails to teach the inlet seal ring as required by amended claim 9, fails to teach the angled surface of the pump inlet as required by claim 10, and fails to teach the angled discharge as required by claim 11. Claims 8-11 are not obviated, therefore.

Rejection Of Claim 12 Under 35 U.S.C. § 103

Claim 12 is newly rejected under 35 U.S.C. § 103 as being unpatentable over Hawes, Hofstad, Back and McEwen, and further in view of Oakes. The Examiner states that Hawes, Hofstad, Back and McEwen disclose the claimed invention, except for the limitations disclosed by Oakes, namely a pump, guide rail assembly (13), discharge outlet (12) connected to discharge piping (7, 8), and where the face of the pump discharge outlet is configured to retain a discharge seal ring (44) positioned thereabout for sealing against the opening of the discharge piping (7). For the reasons stated above with respect to claims 1 and 11, Hawes, Hofstad, Back and McEwan fail, in the first instance, to establish a *prima facie* case of obviousness concerning claim 12. Additionally, none of the references teach a discharge outlet having an angled face as required by claim 12. Claim 12 is not obviated.

Rejection Of Claim 18 Under 35 U.S.C. § 103

Claim 18 is newly rejected under 35 U.S.C. § 103 as being unpatentable over

Englesson. The Examiner states that Englesson discloses the general conditions claimed except for the express disclosure that the angled face is between about five and about forty-five degrees to the central axis, but that it would be within the skill in the art to make an angled face as claimed. The rejection is overcome by amendment of claim 17, from which claim 18 depends. Claim 18 requires an inlet having an inlet seal ring for sealing engagement with a distribution plate opening which is not disclosed or suggested in Englesson. Accordingly, Englesson does not teach the "general conditions claimed" because Englesson is not directed to pump structure for assuring positioning of a pump on a distribution plate by providing means that ensure sealing engagement of both the pump inlet and the discharge outlet. Additionally, and in light of the claimed requirement, it would not be merely a matter of choice for providing the claimed angles, and Englesson provides no teaching or suggestion or appreciation of the claimed angles that would lead one of skill in the art to provide the angles claimed.

Rejection Of Claims 19 And 20 Under 35 U.S.C. § 103

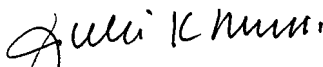
Claims 19 and 20 are newly rejected under 35 U.S.C. § 103 as being unpatentable over Englesson, in view of Oakes. The Examiner states that Englesson discloses the invention, except for the limitation taught by Oakes, namely a submersible pump as claimed, a guide rail assembly (13,20), a discharge outlet (12) configured to retain a discharge seal ring (44) wherein the face is positioned on a discharge adaptor (31) which is further configured with a contact surface for contacting the discharge outlet of the pump, said discharge adaptor being distanced from and unsupported by the guide rail bracket (20). The Examiner states it would have been obvious to modify the pump assembly of Englesson by implementing a seal ring in the angled face of the discharge outlet in order to seal the gap between the outlet and the piping (citing Oakes, col. 6, lines 41-45) and by implementing the angled face of Englesson on a discharge adaptor 31 in order to better connect the discharge piping to the pump (citing Oakes, col. 5, line 55 to column 6, line 18). The rejection is traversed on the grounds that Englesson specifically states that the flanges 15, 16 of the angled faces of the abutted discharge pipes are forced together to make a seal without need of further

tightening of the joint. (Col. 2, lines 57-61) Oakes discloses a vertical face on the abutted discharge piping and inlet that is contrary to the teaching of Engleson. Thus, Engleson and Oakes cannot be combined to obviate the claims. There is no motivation to combine the references and no reasonable expectation for success of the combination. Claims 19 and 20 are not obviated, therefore.

CONCLUSION

In view of the amendments made and arguments presented, the Applicants submit that the claims are now in condition for allowance. Reconsideration and allowance are respectfully requested.

Respectfully submitted,



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